

## HUMAN GROWTH HORMONE SUSTAINED RELEASE FINE PARTICLE PREPARATION AND METHOD FOR PRODUCING THE SAME

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**Abstract of JP2005008545**

**PROBLEM TO BE SOLVED:** To provide a human growth hormone sustained release fine particle preparation which can avoid the employment of an organic solvent to the utmost, has both biodegradability and sustained release performance, sustains the release of the human growth hormone for three or more days, inhibits an initial burst release, can enhance the content of the human growth hormone to 10 % or more, can quantitatively adsorb and encapsulate the human growth hormone up to 20%, and has good dispersibility and needle passableness, and to provide a method for producing the same.

**SOLUTION:** This human growth hormone sustained release fine particle preparation is characterized by comprising a porous apatite derivative, the human growth hormone and a water-soluble divalent metal compound. The method for producing the human growth hormone sustained release fine particle preparation is characterized by stirring and dispersing fine porous apatite derivative particles in water containing the human growth hormone to infiltrate the aqueous solution in the porous apatite derivative, adding an aqueous solution containing the water-soluble divalent metal compound to infiltrate the water-soluble divalent metal compound in the porous apatite derivative, adding additives such as a stabilizer, and then lyophilizing or vacuum-drying the mixture.

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